

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. : 10/628,954 TC/Art Unit : 2179  
Applicant : Stefan Kusterer et al. Conf. No. : 6169  
Filing Date : July 28, 2003 Examiner : Nicholas Augustine  
Title : UNIFYING NAVIGATION MODULE

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Commissioner for Patents  
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**REPLY BRIEF FILED IN RESPONSE EXAMINER'S ANSWER**

Appellant files this Reply Brief pursuant to 37 C.F.R. § 41.41 in further support of an appeal of the final rejection of claims 4-10, 13-18, 21, 25-31, and 34-39 under 35 U.S.C. § 102(b) in the final Office Action of March 18, 2008 and in response to the Examiner's Answer mailed on September 2, 2009. As this Reply Brief is filed within two months of the mailing date of the Examiner's Answer, it should be entered and considered in accordance with 37 C.F.R. § 41.41(a)(1). No additional fees are believed to be due, however, the Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 34874-073/2003P00062US01.

**CERTIFICATE OF ELECTRONIC TRANSMISSION**

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## I. OPENING REMARKS

Appellant respectfully reiterates the previously stated arguments that claims 34, 35, and 36 and all claims that depend therefrom are allowable over the art currently of record in this matter. In the alternative, dependent claims 4 and 25 as well as 8 and 14 are also respectfully submitted to be separately allowable over the prior art of record.

As a first point, Appellant respectfully submits that the basis for the pending anticipation rejections of the claims under appeal appears to have been assembled from short textual passages in Polizzi that the Office has taken out of context and that do not properly reflect the subject matter disclosed by Polizzi. This piecemeal reading of Polizzi has resulted in an apparent failure by the Office to properly consider the meaning of the terms and descriptions that allegedly anticipate the instant subject matter. In fact, the rejections themselves are not even internally consistent in that attributes ascribed by the Office to elements described by Polizzi directly and clearly contradict each other. In an attempt to clarify and highlight the clear distinctions between the claimed subject matter and Polizzi, the following brief summary of Polizzi and how the subject matter described therein relates to the instantly claimed subject matter is provided for consideration.

## II. DIFFERENCES BETWEEN POLIZZI AND CLAIMED SUBJECT MATTER

The system described by Polizzi and shown in FIG. 1 and FIG. 2 provides a portal system 120 that connects to a variety of backend databases (135, 140, 145, and 150 in FIG. 1 and 200, 205, and 210 in FIG. 2) using different operating systems to provide data access for a user to the backend databases via a single computer interface. The portal system 120 can also function as a middleware program that converts a user's instructions into commands to retrieve and process data from the backend databases.<sup>1</sup> The portal system of Polizzi includes a variety of service agents that can retrieve data from the backend databases using different operating systems and perform, at the portal system, any format conversions or translations required to present the retrieved data to a user through a single computer interface. While the end result to a user of the Polizzi system might appear at first impression to be similar to the benefits provided by the instantly claimed subject matter, the operation of the Polizzi system clearly differs from the instantly claimed subject matter in a manner that precludes a finding of anticipation and that also directly teaches away from claimed systems and methods.

In the instantly claimed subject matter, a connector interface that is defined by an integration layer is implemented at the data layer to provide navigation connectors and navigation nodes representing the data objects in the application sources of the data layer. A navigation service module of the integration unites the navigation nodes provided by the navigation connectors (which are provided by the connector interface implemented at the data layer) to unite the application specific hierarchies into a unified, consistent application hierarchy. Thus, unlike in Polizzi where a portal system operates as a data translation and conversion mediator for a set of backend databases that each provide data to the portal system in their own native formats, the application sources in

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<sup>1</sup> See line 65 of column 3 to line 8 of column 4 of Polizzi.

the data layer each provide a navigation connector and navigation nodes to the integration module as a result of implementing a connector interface at the data layer. The instantly claimed subject matter "eliminates the middleman" required in Polizzi by providing the defined connector interface from the integration layer to the application sources which in turn implement the defined connector interface locally rather than simply providing data to the integration layer in their own native formats.

### III. RESPONSE TO REBUTTAL ARGUMENTS

In the Examiner's Answer, the Office provided specific rebuttal arguments to the issues raised by Appellant in Arguments A1 through A6, specifically that Polizzi neither discloses nor suggests several explicit limitations of claims 34-36, including 1) each of the application sources creating an application-specific hierarchy; 2) these application-specific hierarchies being united into a unified, consistent application hierarchy that is presented to one or more clients; 3) the claimed navigation connectors each being provided by one of the application sources; 4) each navigation connector having a one-to-one relationship with one of the plurality of application sources; 5) the navigation service module being distinct from and having different functionality than the connector interface; and 6) the integration layer and presentation layer residing on a first programmable machine while the application sources and the navigation connectors that each application source implements residing on one or more other programmable machines. Appellant's reply to the Office's rebuttal arguments are presented below in relation to each original argument.

**Argument A1. Polizzi does not disclose “each of the plurality of application sources creating an application-specific hierarchy” as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.**

In regards to the rebuttal arguments presented in the Examiner's Answer regarding Appellant's Argument A1, Appellant does not dispute that the jobs described by Polizzi can be construed as “applications”<sup>2</sup> and can have a “hierarchical arrangement of properties” associated with the job.<sup>3</sup> Appellant also does not dispute the Polizzi backend databases that the Office has referred to as “job sources” can be on different machines than the Polizzi portal system 120. Despite these admissions, Appellant nonetheless respectfully submits that Polizzi cannot be reasonably construed

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<sup>2</sup> As described at lines 34-49 of column 6 in Polizzi.

<sup>3</sup> As described at lines 25-28 of column 14 in Polizzi.

as disclosing the instant feature of the claimed subject matter. The Office's rebuttal arguments in this first section appear to erroneously conflate features of Polizzi without properly considering clear differences between the claimed subject matter and Polizzi taken in their proper contexts. The jobs and the job sources of Polizzi are not the same thing. Rather, the jobs, as asserted by the Office, are applications running on and stored at the portal system. The job sources are merely the backend databases from which the jobs can retrieve data. As such, the jobs having hierarchical properties does not in any way indicate that the backend databases disclosed by Polizzi have application-specific hierarchies. Even if some analog of the instantly claimed application-specific hierarchies can be construed as being present on the backend databases of Polizzi, nowhere does Polizzi describe or even suggest that such application-specific hierarchies are united into a unified, consistent application hierarchy using navigation connectors and navigation nodes provided by the application sources via implementation, by the programmable machines of the data layer, of a connector interface that is defined by a navigation service module at the integration layer.

**Argument A2. Polizzi fails to disclose the presentation of a unified, consistent application hierarchy into which the application-specific hierarchies are united as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.**

In the Examiner's Answer, the Office cites Polizzi at lines 45-66 of column 20, line 47 of column 23 to line 7 of column 24, and lines 35-53 of column 24 as describing a portal page that presents data from the portal system to the user. The Office asserts that this portal page is equivalent to the instantly claimed unified, consistent application hierarchy. Further at the top of page 22 of the Examiner's Answer, the Office alleges that the Polizzi portal page presenting to a user the jobs and job properties provides further evidence in support of this aspect of the rejection. These assertions are simply not supported by a careful reading of Polizzi.

As noted above in both the general discussion of the differences between the instantly claimed subject matter and the Polizzi disclosure and in regards to Argument A1, the Polizzi jobs and job properties are not representative of the instantly claimed application-specific hierarchies created by application sources. The jobs, etc. of Polizzi are stored and implemented at the portal server, which is distinct from the backend databases (alleged as equivalent to the data layer). Furthermore, jobs run by a job server on a portal system, that process data, and that can perform a variety of tasks such as retrieving data from a back-end database cannot reasonably be construed as application-specific hierarchies created by application sources in a data layer on different processors than an integration layer. While the portal page does present data from the portal system, those data presented are based on content preferences set by the user to control, for example, which jobs are to be run by the portal system. The portal page of Polizzi appears to do little more than present the results of data retrieved, processed, etc. by jobs.

**Argument A3. Neither the “links” nor the “jobs” of Polizzi anticipate the claimed navigation connectors each of which is provided by one of the application sources as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.**

In the Examiner's Answer, the Office alleges that the links to jobs provided on the Polizzi portal page are equivalent to the instantly claimed navigation connectors. Again it appears that the features of different elements of Polizzi have been conflated in a manner that directly contradicts the actual disclosure of Polizzi when read in context. In the current subject matter, one navigation connector is provided by each of the plurality of application sources. In Polizzi, the jobs are data retrieval routines that can access more than one of the backend databases and thus cannot be the navigation connectors. Furthermore, as noted above, the jobs cannot be construed as similar to the claimed application sources because the jobs are stored and implemented at the portal system, not

the backend databases. Links on the portal pages to the jobs are likewise not comparable to the navigation connectors of the current subject matter, which go between the navigation service module at the integration layer and the application sources in the data layer. At best, the Polizzi backend databases might be construed as a data layer. However, unlike the application sources as currently claimed, the backend databases of Polizzi perform no functions other than storage of data that can be retrieved by the portal system. Appellant therefore questions how the Office can reasonably suggest that Polizzi discloses or even suggests anything remotely comparable to the instantly claimed navigation connectors provided by application sources.

**Argument A4. Polizzi fails to disclose that the claimed navigation connectors have a one-to-one relationship with each of the plurality of application sources as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.**

As noted in regards to Argument A3, the links to jobs provided on the Polizzi portal page cannot reasonably anticipate or even fairly suggest the instantly claimed navigation connectors. Given the totality of the Polizzi disclosure taken in the proper context, Appellant submits that it should be clear that these “links” are not provided by an application source as a result of one or more processors of a data layer implementing a connector interface defined by a navigation service module at an integration layer. At best, the links are from the portal page to jobs at the portal system. The Office has failed to explain how a) such a link can reasonably be construed as being provided by an application source<sup>4</sup> or b) how each application source can provide only one such link. The links in Polizzi are from the portal page to call various jobs at the portal system. Even if each link calls a single job, Polizzi does not describe the jobs retrieving data from only a single backend database. Each link of Polizzi accesses a single report, job or other object stored in the

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<sup>4</sup> As opposed to an application, which the Office asserted a job to be in the rebuttal to Argument A1.

data repository 235.<sup>5</sup> If the links of Polizzi are equivalent to the instantly claimed navigation connectors as alleged by the Office, each link should generate one or more navigation nodes for a single application source (the application source that provides that link/navigation connector) and provide those navigation nodes to the navigation service module. This is clearly not the case as the links are processed by the service broker and then passed to the job server 230 which can retrieve data from a backend database 200, 2005, 210 as shown in Figure 2 and described at col. 5, lines 53-55 of Polizzi. None of the functionality of the Polizzi portal system is ever disclosed as being implemented in a one-to-one relationship with a single application source in the data layer as instantly claimed.

**Argument A5** The name server 225 of Polizzi cannot anticipate both the connector interface and the navigation service module as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.

The Office argues in regards to Appellant's Argument A5 that the Polizzi "name server 225" is equivalent to the claimed "connector interface" and that the Polizzi "service broker 125" functions as a "navigation service module." This position clearly fails to consider either of the following:

- The claimed navigation service module defines the claimed connector interface.  
How does the service broker 125 of Polizzi define the name server 225?
- The claimed connector interface that is defined by the claimed navigation service module is implemented on the one or more additional programmable machines on which the application sources of the data layer reside. Where does Polizzi disclose that the name server 225 is implemented in the data layer?

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<sup>5</sup> See lines 36-49 of column 2 in Polizzi.

Simply put, the Office appears to have ignored a significant portion of the claim in proffering the grounds for rejection.

**Argument A6.** Polizzi fails to disclose that the integration layer and presentation layer reside on a first programmable machine and the plurality of application sources AND the navigation connectors by the application sources implementing the defined connector interface reside on one or more additional programmable machines distinct from the first programmable machine as recited in independent claims 34, 35, and 36 and the claims that depend therefrom.

With regards to Argument A6, the Office states that “the job server can pull data (application sources and navigation connectors) from back-end database different from the repository 235; wherein the repository stores the presentation and integration layer.” Once again, this assertion appears to take passages of Polizzi out of context to impute an alleged meaning that is not consistent with the reference when read as a whole. First, to allege that the instantly claimed presentation and integration layer are “stored” in Polizzi’s repository 235 directly contradicts the Office’s own statements made in rebuttal to Argument A5 regarding the service broker 125 of Polizzi functioning as a navigation service module. As claimed, the navigation service module is part of the integration layer. In Polizzi, the service broker 125 controls access to the computer system and a plurality of service agents 130 that are configured to perform specific tasks within the portal system 120.<sup>6</sup> How is the service broker 125 “stored” in the repository 235 of Polizzi?

Furthermore, the Office’s statement appears to allege that data pulled from back-end databases by the job server equate to both the instantly claimed application sources and navigation connectors. Appellant has acknowledged above that the backend databases of Polizzi could be construed as some kind of application source. However, the Office provides no basis for the allegation that the data pulled by the job server from a back-end database can be construed as a

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<sup>6</sup> See lines 34-37 of column 4 of Polizzi.

navigation connector. As noted above, the claimed navigation connectors are provided by the application sources upon implementation in the data layer of the connection interface provided by the navigation service module of the integration layer. The Office has failed to provide any support for the implicit allegation that Polizzi even suggests, let alone discloses, this feature. Second, in the rebuttal to Arguments A3 and A4, the Office has previously argued that the links of Polizzi, which allow calls to jobs from the portal page, are equivalent to the instantly claimed navigation connectors. The allegation presented in rebuttal to Argument A6 that the navigation connectors are part of the data pulled from the backend databases by the job server is not internally consistent with the prior line of reasoning. The links allow a user to call a job from the portal page. Because Polizzi's portal system is explicitly a middleware system that converts data from a backend database and presents it to a user in a standardized format,<sup>7</sup> such links by definition cannot provide direct access to a backend database. Rather, a link calls a job which can retrieve data from one or more backend databases.

In summary, a proper interpretation of the claimed subject matter requires that a data layer including one set of programmable machines and a plurality of application sources implements a connector interface that is defined by a navigation service module of an integration layer provided on a different programmable machine. Implementation of the connector interface by the programmable machines of the data layer causes each of the application sources to provide one navigation connector and one or more navigation nodes representing data objects in that application source. The navigation connectors provide the navigation nodes to the navigation service module which unites the navigation nodes into the unified, consistent application hierarchy. A careful, contextual reading of Polizzi does not support the Office's position that the cited reference discloses the backend databases (a data layer) implementing any connector interface provided from an

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<sup>7</sup> See lines 1-5 of column 2 of Polizzi.

integration layer. Likewise, the backend databases do not provide navigation connectors or navigation nodes that can be united by a navigation service module as instantly claimed.

For at least the above-noted reasons and those presented in Appellant's Appeal Brief, all of the pending rejections should be reversed and the independent claims allowed.

Appellant further notes that the Office failed to reply to any of the points raised in Arguments B and C of the Appeal brief in regards to the dependent claims. Proper consideration of those issues is requested in the event that the independent claims are not deemed patentable. It is also respectfully submitted that the additional detail provided above in regards to the content of the Polizzi disclosure is also applicable to proper interpretation of the dependent claims.

**Concluding Comments**

On the basis of the foregoing arguments, the pending claims are in condition for allowance. Because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

No fee is believed to be due, however, the Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 34874-073/2003P00062US01. If there are any questions regarding this Reply Brief, the undersigned may be contacted at the telephone number provided below.

Respectfully submitted,

Date: November 2, 2009

  
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